UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,562	03/30/2004	Walton Fong	HSJ920030165US1 (0549)	4116

62630 7590 12/18/2007

DAVID W. LYNCH
CHAMBLISS, BAHNER & STOPHEL
1000 TALLAN SQUARE-H
TWO UNION SQUARE
CHATTANOOGA, TN 37402

EXAMINER	
MERCEDES, DISMERY E	
ART UNIT	**PAPER NUMBER**
2627	

MAIL DATE	DELIVERY MODE
12/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/813,562	FONG ET AL.	
	Examiner	Art Unit	
	Dismery E. Mercedes	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 9/17/2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Objections

2. Claims 7-10 are objected to because of the following informalities: claims 7-10 are drawn to a method, whereas the parent claim is drawn to an apparatus claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-15 rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. "Performing *an initial* burnish operation" critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Because this is a method claim, the claimed method must be disclosed in Applicant's Specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 6,417,981) in view of Felts et al. (US 5,863,237).

Smith discloses a method for comprising: measuring an initial MR resistance for a head (fig.6, 104 and col.1-5, where MR element voltage variation is monitored); determining whether the measured MR resistance indicates the head has clearance (fig.6,106-108-110 and col.5, lines 2-5 and col.47-62- wherein if the MR voltage exceeds a threshold it determines that there was slider and disk contact, and head-disk clearance is determined as a function of this parameter).

Smith fails to specifically disclose burnish operation and completing the test cycle when the head is determined to have clearance. However, Felts et al. discloses method for burnishing a surface of magnetic disk wherein it initializes burnishing operation of the disc surface and wherein the burnish cycle is completed after a burnish seek time has elapsed. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention was made, to implement a burnish cycle as disclosed by Felts to the method as disclosed by Smith, the motivation being to provide burnishing operations to reduce the number of asperities on the surface.

As to Claim 2, Smith further discloses: reducing the fly-height of the head when the measured MR resistance indicates the head does not have clearance (fig.6, 106-wherien if the MR voltage does not exceed the threshold, then it goes back and reduces the disk speed, thus reducing the fly height); measuring the MR resistance again (fig.6, loop from 106 back to 104 if no threshold was exceeded); and returning to determine whether the measured MR resistance indicates the head has clearance (fig.6, 106,108,110). Smith fails to specifically disclose perform a subsequent burnish operation. However, Felts et al. discloses method for burnishing a surface of magnetic disk wherein it initializes burnishing operation of the disc surface and performs a subsequent burnish operation if a burnish seek time has not elapsed. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention was made, to implement a burnish cycle as disclosed by Felts to the method as disclosed by Smith, the motivation being to provide burnishing operations to reduce the number of asperities on the surface.

As to Claim 3, Smith further discloses wherein the reducing the fly-height of the head further comprises selecting at least one process from the group comprising reducing the pressure within the disclosure, reducing the spindle speed and increasing the pre-load to the head (col.10, lines 1-15).

As to Claim 4, wherein the determining whether measured MR resistance indicates the head has clearance further comprises comparing the absolute MR resistance measurements to a threshold to identify whether the head has clearance (col.11, lines 49-60- wherein the voltage is compared to a predefined threshold for determining the absolute head-disk clearance).

As to Claim 5, Smith further discloses wherein the determining whether measured MR resistance indicates the head has clearance further comprises comparing the MR resistance rate of change to a threshold to identify whether the head has clearance (col.11, lines 49-60- wherein the voltage rate of change may be used and compared with a predefined threshold for determining the absolute head-disk clearance).

As to Claims 6-10 are apparatus claims drawn to the method of claims 1-5 and are rejected for the same reasons of obviousness as set forth in the rejection of claims 1-5 above.

As to Claims 11-15 are drawn to the device corresponding to the method of using same as claimed in claim 1. Therefore program storage device claim 11 corresponds to method claim 1, and is rejected for the same reasons of obviousness as used above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gillis et al. (US 6,359,433); Li et al. (US 2004/0085670); Brand et al. (US 2003/0058559);

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DM

TAN DINH
PRIMARY EXAMINER
12/17/07